AUDIO TESTING IN A PACKET SWITCHED NETWORK

ABSTRACT

An audio test system for analyzing and quantifying audio data losses during network-based telephony sessions between communication devices such as telephony-enabled computers and Internet telephones. A transmit device converts an input audio signal to a stream of data packets and communicates the data stream over a network to a receive device. The receive device converts the data stream to an output audio signal. An audio analyzer is coupled to the transmit device and the receive device to monitor and capture the input audio signal and the output audio signal. The audio analyzer determines transmission qualities for the session, such as data loss and latency, by generating and comparing envelope waveforms of the input audio signal and the output audio signal. In order to increase the accuracy of the data loss analysis, the resolution of the envelope waveforms is set as a function of the communication protocol used to communicate the audio data stream and a buffer length of the coder/decoders used by the transmit device and the receive device.